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ABSTRACT

Tennessee employers were surveyed regarding secondary vocational education as a source of entry-level employees and on their perceptions of issues in the Carl D. Perkins Vocational and Applied Technology Act of 1990. A survey instrument secured ratings for various types and levels of educational and governmental agencies. The population consisted of 680 employers identified by secondary vocational education teachers as employing recent program graduates; 383 responses were usable. Data were analyzed using the Statistical Analysis System; frequencies, percentages, and analysis of variance were conducted. Findings indicated that small- and large-size firms valued secondary vocational-technical programs as a source of entry-level employees above other sources; medium-sized firms valued postsecondary programs. The larger the firm, the more it valued other sources in addition to secondary education. The majority of small- and medium-sized firms valued a high school diploma most; larger firms valued two-year technical community college degrees most. Employers consistently rated secondary vocational-technical graduates over other entry-level employees. They valued secondary teachers and administrators more than postsecondary programs for working with employers to meet labor market needs. Respondents supported basic skill enhancement courses, entry-level academic skill standards, special education teachers teaching general employment skills, and reinforcement of general employment skills through academic courses for disadvantaged students. (Twenty-six references and the study instrument are appended.) (YLB)

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A STATEWIDE NEEDS ASSESSMENT IN TENNESSEE:

EMPLOYERS

By

Don E. McNelly
Gregory C. Petty
Constance D. Thomas
Edward C. Mann

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A STATEWIDE NEEDS ASSESSMENT IN TENNESSEE:

EMPLOYERS

A research study identifying needs based on the Carl D. Perkins Vocational and Applied Technology Act of 1990 as perceived by Tennessee employers.

Principal Investigators:

Don E. McNelly
Gregory C. Petty
Constance D. Thomas
Edward C. Mann

Contents of this publication do not necessarily reflect views of policy, position, or opinion of the Tennessee Department of Education or the University of Tennessee, Department of Technological and Adult Education.

Preface

In response to the Carl D. Perkins Vocational and Applied Technology Act of 1990, four statewide needs assessment surveys were conducted. Several individuals have made contributions to initiating the surveys. Special recognition is hereby extended to the Tennessee Department of Vocational-Technical Education staff. In particular, Mr. Marvin Flatt, Assistant Commissioner, Tennessee State Department of Education, Mr. Russell Smith, Administrative Assistant and Director of Field Services, and Mr. Jim Vinson, Director of Program Planning and Development are recognized. Special recognition is also extended to Dr. Gerald Cheek, Professor and Department Head for the Department of Technological and Adult Education, University of Tennessee--Knoxville, for technical advice and departmental support which includes graduate assistants to help conduct various activities. The statewide surveys and reports would not have been possible without their support and assistance. Many local vocational administrators, teachers, and employers assisted by providing primary information and data.

The new legislation specifically requires local and statewide needs assessments to aid in vocational program planning for improvement and accountability. The four studies were conducted statewide to provide initial status with respect to the eleven federal needs assessment criteria areas and as a framework for measuring on an objective basis progress over a given period of time. Further, each study provides the perceptions of the respondents, namely, vocational administrators, vocational teachers, special needs teachers, and employers. Each study was designed to secure responses from the respondents in selected areas. By combining the four reports, measures are available for all eleven federal needs assessment criteria areas.

The research was conducted through the State Secondary Vocational Program Evaluation Project with each researcher taking a lead role with one of the studies. The scope of this study was confined to perceptions from one respondent source. No graduate student used the data for a dissertation or thesis.

Secondary Vocational-Technical Education is serving many secondary students. This research report should provide information to policy makers and planners to assist them in their efforts to continue to provide quality relevant vocational-technical education for all secondary students in Tennessee.

Don E. McNelly
Director
State Secondary Vocational
Program Evaluation Project
and Principal Investigator

TABLE OF CONTENTS

	PAGE
Executive Summary	v
Introduction	1
Purpose of the Study	1
Educational Importance	2
Limitations	2
Methodology	3
Instrumentation and Data Collection	3
Data Analysis	5
Review of Related Literature	6
Findings	18
Conclusions, Recommendations, and Implications	35
References	47
Appendix A	49

LIST OF TABLES

PAGE

1. Rating of the Value of Various Sources for Finding New Entry-Level Employees by Size of Firm..... 20

2. Rating of the Value of Different Types of Training for Entry-Level Employees by Size of Firm..... 21

3. Rating of the Value of the Different Types of Educational Background for Entry-Level Employees by Size of Firm..... 22

4. Rating of the Value of Entry-Level Skills for Secondary Vocational Graduates to Other Entry-Level Employees by Size of Firm..... 23

5. Desirability of Each Location for Training Local Employees by Size of Firm..... 24

6. Value of Selected Sources in Meeting Labor Market Needs by Size of Firm..... 26

7. Rating of Local Secondary Vocational-Technical Programs by Size of Firm..... 27

8. Rating of High Schools Involvement in Selected Activities by Size of Firm..... 28

9. Importance of General Employment Skills for Employees by Size of Firm..... 32

EXECUTIVE SUMMARY

The new Carl D. Perkins Vocational and Applied Technology Act of 1990 has extended and amended the original Act of 1984. One of the critical accountability issues in the new Act is the responsiveness of vocational-technical education to the needs of business and industry. The quantity and quality of information at the federal and state levels pertaining to the responsiveness to business and industry is limited. This study was initiated by the Department of Vocational-Technical Education, Tennessee Department of Education to identify initial benchmarks for accountability purposes and to provide research data on a statewide basis.

The purposes of the study were to ascertain on a statewide basis employers' perceptions regarding secondary vocational education as a source of entry-level employees and the employers' perceptions on issues in the new legislation. A predetermined sample size was established in order to be able to make inference to the entire state. The number of usable returns in this study was sufficient to make inference to all public secondary vocational-technical programs in the state of Tennessee. Information was secured by self-reported survey from employers who had recently hired secondary vocational-technical program graduates as entry-level employees.

From the review of the related literature, generalizations about employer perceptions are as follows:

1. Employers felt the occupational students were better prepared for the work world than academic students (Montemayer, Hardin, Reed, 1986).
2. Vocational education is meeting the needs of employers and providing students who have mastered the needed reading and math skills (Crain, 1984).
3. Students who had concentrated in vocational subjects while in high school were more likely to spend more time in the labor force, be paid higher earnings, and have higher rates of production. Vocational education graduates should be compared to others like themselves or the results will be biased against vocational education curriculum (Campbell and Parnes, 1986).
4. Young workers, particularly the non-college bound and small firms, are inextricably limited and that vocational-technical education is critical to both (Gray and Wang, 1989).
5. Small employers need entry-level workers with two types of basic skills--basic academic skills and basic vocational skills (Gray, 1989).
6. Two-thirds of the employers responding to a study in Georgia said that 50% of new hires needed vocational education training (Stonehouse, 1987).
7. The projected total earnings for Tennessee high school students working part-time earned over $191,000,000 and paid $14,561,124 in sales taxes. The cooperative vocational

students earned $1,127 more than non co-op students for extended earnings over a twelve-month period (McNelly, Mann, Petty, 1990).

8. Suggestions for the improvement of vocational education programs are: provide job-related experiences for students, offer job interview preparation and experiences, make students work harder, teach maturity to students, encourage further education, provide job placement services, and provide individualized career counseling (University of Missouri-Columbia, 1987).
9. Employers should be given the opportunity to help with skills training programs and assist in developing curriculum. The needs of small businesses were cited as being particularly pertinent because they will make up the majority of new jobs in the future (Wilms, 1984).
10. Recent secondary vocational graduates had better entry-level work skills than recent graduates without secondary vocational education. The addition of more secondary vocational education programs would be effective in assisting local areas served by secondary vocational education programs. Secondary vocational education was cost effective for business and industry in reducing training time for entry-level employees (Petty, McNelly, Searle, 1989).

11. Employability skills are probably the most important skills schools can offer their students (Pine and Innis, 1987; Stevenson and Bowers, 1986).
12. Work attitudes as well as work values and habits are intrinsic components of work necessary for job survival (Kazanas, 1978).

The findings in this study of Tennessee's employers confirms many of the findings and conclusions reported in the literature. The previous studies, however, reveal very little research comparing the various educational institutions and governmental agencies as sources of entry-level employees. This study does include the comparisons as reported by employers who have recently hired a secondary vocational-technical high school graduate.

Instrumentation

The instrument used in this study was the Tennessee Vocational Needs Assessment: Employers. This instrument consisted of seven comparative questions, eleven questions pertaining to high schools, and thirty-six general employment skill items. The seven comparative questions had response categories of Poor = 1, Adequate = 2, Good = 3, and Very Good = 4. The eleven high school questions had response categories that ranged form None = 1 to Great Extent = 9. The thirty-six general employment skills response categories ranged from Not Important = 1 to Very Important = 9. The instrument has a Cronbach Alpha internal consistency reliability coefficient of .9366.

Methodology

Secondary vocational teachers preparing students to enter the labor market were randomly selected to provide the names of three employers who had recently hired one of their graduates. The survey instrument was mailed to the employers and was also returned by mail. A total of 680 usable employer names and addresses were collected. From the sample of 680 employers, a total of 383 useable responses were collected for a response rate of 56.3%. The sample of 383 was deemed large enough to represent all employers hiring vocational graduates in the state of Tennessee. Of the 383 returns, 175, or 46.0% were small firms indicating they had less than 50 employees, 101, or 26.6% were medium-sized firms indicating they had 50 to 150 employees, and 104, or 27.4% were large-sized firms indicating they had more than 150 employees.

Data Analysis

Data were analyzed using the Statistical Analysis System (SAS 90) at the University of Tennessee, Knoxville. Variables were cross tabulated by size of firm for the employers responding to the survey. Data deemed faulty or in error were omitted from the final analysis.

Limitations

The study was limited to employers who had recently hired secondary vocational-technical graduates.

Conclusions, Recommendations, and Implications

The stratified random sampling procedure utilized and the resultant follow-up yielded 383 usable survey forms. This criteria enabled the researchers to make inferences to 76,000 Tennessee employers. The majority of the employer responses were deemed adequate or above for

secondary vocational-technical education. This should not be interpreted to mean there is no room or need for improvement. The structure of most of the questions in the survey call for judgments about secondary vocational-technical education along with other types of educational institutions or service agencies as sources of employees for entry-level jobs. The value of secondary vocational-technical education as a source of entry-level employees is relative to the other institutions or service agencies.

Significant differences were reported between the ratings by size of firm on respective items in the survey. However, the findings suggest more items of which there were no statistical difference between the employers than items with statistical difference.

Value of Sources for Finding New Entry-Level Employees

Small- and large-sized firms valued secondary vocational-technical programs as a source for finding new entry-level employees above the other sources. Medium-sized firms valued postsecondary above the other sources. JTPA, employment agencies, and Employment Security were least valued. The larger the firm, the more they valued other sources in addition to secondary vocational-technical education.

Secondary vocational education should be recognized for providing entry-level employees who are valued by all employers. JTPA programs should be evaluated to ascertain why they were the lowest valued source for new entry-level employees by the small- and large-sized firms.

Value of Types of Training for Entry-Level Employees

Previous work experience in a similar job is the highest valued type of training by all employers for entry-level employees. Secondary vocational-technical and cooperative education are valued as types of training by all employers. JTPA is the least valued. Related work experiences and cooperative education should be expanded for secondary vocational-technical students.

Value of Types of Education Background

The majority of the employers in Tennessee--small- and medium-sized firms--valued a high school diploma over the other types listed. Larger firms valued two-year technical community college degrees over the other types listed. The majority of the employers in Tennessee valued two-year skill training in secondary vocational education next to the high school diploma.

Secondary education diplomas and two-year skill training in secondary vocational-technical education should be recognized for providing valued entry-level employees for the majority of jobs and employers in the state of Tennessee. High schools should allow all students to prepare for entering the workforce. A small percentage of high school graduates who seek a four-year degree graduate. An even smaller percentage of the students seeking a two-year degree actually graduate. College dropouts need employable skills when they enter the workforce.

Value of Entry-Level Skills for Secondary Vocational Graduates to Other Entry-Level Employees

Employers from all sized firms consistently rated secondary vocational-technical graduates over other entry-level employees. The areas being rated were quantity of work, quality of work, job related technical skills, basic academic skills, and general employment skills.

Secondary schools should continue their efforts to improve vocational programs. The secondary vocational-technical programs should be recognized for providing entry-level employees who are highly valued by the majority of the employers in Tennessee.

Desirability of Location for Training Local Employees

On-the-job training was rated most desirable by the majority of the employers in Tennessee for training their local employees. Employers may prefer on-the-job training for convenience and specific skill development on their own equipment. Local secondary schools and postsecondary schools cannot duplicate all of the equipment used by all of the employers. Until funding encourages and rewards secondary systems there will be very little incentive to provide training for existing employees.

Value for Working With Employers to Meet Labor Market Needs

Secondary teachers and administrators were more valued than postsecondary teachers and administrators for working with Tennessee employers to meet their labor market needs. JTPA was consistently rated least valuable by Tennessee employers.

All secondary and postsecondary teachers and administrators should be encouraged to continue working with employers to meet their labor market needs. The vocational-technical teachers should be recognized and given active support for working with and meeting the labor market needs.

Relevance of Local Secondary Programs

Secondary vocational-technical programs are relevant to the workplace, occupations for which students are to be trained, current labor market needs, future labor market needs, and areas of emerging technologies. The larger the firm, the less secondary vocational education is relevant for the above areas. The secondary vocational-technical programs are relevant to the majority of entry-level jobs in Tennessee.

Secondary vocational-technical education should continue to be responsive to program changes in order to remain relevant to employer needs.

Equal Emphasis on Placement into Employment and Continuing Education

Employers are supportive of high schools placing equal emphasis on placement into employment and continuing education.

High school counseling programs should include placement into employment as a major function on an equal basis with current efforts for placing students into continuing education. Handicapped and disadvantaged students should receive additional placement into

employment services. Special education funds should be allocated to provide extra placement services for the handicapped.

Basic Academic Skill Enhancement Courses

Tennessee employers are strongly supportive of high schools offering basic skill enhancement courses in addition to specialized vocational-technical education courses. The larger the firm, the more they are supportive of the above.

Intervention efforts should be available before under skill level students are enrolled into a vocational program. Basic academic skill enhancement should be a total school goal and not the burden for secondary vocational education.

Entry-Level Academic Skills Standards

Entry-level academic skill standards for getting into vocational technical education programs are supported by the employers.

Entry-level standards would provide a discrepancy profile between desired and existing academic skill levels. Some of the secondary vocational-technical programs require fairly high math and reading skills. A skills discrepancy analysis would assist counselors and other educational professions in providing valid assessments of student performance.

Increase Job Skills Attainment

Tennessee employers are strongly supportive of secondary vocational-technical education programs increasing job skill attainment for their students.

Secondary vocational-technical teachers should increase the expectations from the students and help them to attain higher

expectations. Relevant curriculum with practical applications along with a positive learning environment will help the students to identify with why the skills and knowledge are needed.

Job Skills Attainment Profile

Employers are supportive of the vocational-technical education teachers providing a job skills attainment profile.

A job skills attainment profile should be provided each secondary vocational-technical education student. The job skills profile would better communicate to employers what was mastered while in school compared to a letter grade.

Expand the Vocational-Technical Curriculum

All employers were supportive of expanding the curriculum. The larger the size of firm, the more they are supportive of the expansion.

The suggested areas to be added include planning, management, finances, technical skills, production skills, underlying principles of technology, labor issues, community issues, health, safety, and environmental issues. A balance would need to be established between the basic competencies and advanced competencies.

Career Information and Experiences

All employers are strongly supportive of providing more career information and experiences before requiring the students to select a vocational-technical program.

Minimal information and experiences will continue to produce less than desirable career choices. Secondary students should be able to select a program area on the basis of interest and aptitude.

Special Education Classes Reinforce Job Skills

Employers are supportive of special education classes reinforcing vocational-technical education job skills.

By reinforcing vocational-technical job skills, handicapped students would have the benefit of relevant curriculum which would help prepare them for job entry. Special education teachers should infuse practical relevant vocational-technical subject matter rather than traditional academic materials.

Special Education Classes Teach
General Employment Skills

All employers are supportive of special education teachers teaching general employment skills to handicapped students. The larger the firm, the more they are supportive of the above.

General employment skills have always been important for employees, especially for new entry-level employees. Secondary special education personnel should be helping their handicapped students to become more successful in gaining and maintaining employment.

Regular Academic Classes Remediate Basic Skills

Employers are supportive of disadvantaged (below skill level) students receiving basic skill remediation through regular academic classes. The larger the firm, the more they are supportive of the above.

Each regular academic teacher has opportunities every day to make certain all of his/her students are learning the content, concepts, or facts before going into more complex lessons. The lack of basic skills is not a vocational problem, it is a total school problem. Extra

intervention should be early enough to help keep the educational problem(s) from magnifying.

Regular Academic Classes Reinforce General Employment Skills

Employers are supportive of general employment skills being reinforced through regular academic courses for disadvantaged (below skill level) students. The larger the firm, the more they are supportive of the above.

Regular academic courses should reinforce general employment skills for disadvantaged students. Relevant curriculum and general employment skills would have practical applications to assist the disadvantaged to relate to the content and thus with academic lessons. Abstract academic exercises are not the best curriculum for disadvantaged learners. Regular academic teachers have access to students 91% of the time in high school where students earn two credits out of twenty-two in vocational-technical education.

General Employment Skills

All employers are strongly supportive of including the thirty-six general employment skills in the state curriculum guides.

The thirty-six general employment skills have been validated by the responding employers. They should be included in all secondary vocational-technical curriculum guides. The following general employment skills had the highest mean values and should be given special attention: pride in work, commitment to quality, sense of responsibility, follows directions, respect for others, dependable, punctual, attendance, and communicating--listening.

INTRODUCTION

Responsiveness to the needs of business and industry has emerged as one of the critical accountability issues in the new Carl D. Perkins Vocational and Applied Technology Act of 1990. The law, which extended and amended the original Act of 1984, has authorized the United States government to spend up to 1.6 billion dollars a year on state and local programs teaching "skill competencies necessary to work in a technologically advanced society." Studies have varied with respect to how well secondary vocational education programs are meeting employers' needs.

In response, the State of Tennessee Department of Education, Division of Vocational-Technical Education sought to establish an extensive system for evaluating programs which included assessments of standards and performance measures by the chief consumers of the student educational process--employers. Firms and organizations statewide were asked to provide baseline data concerning their perceptions of the effectiveness of secondary vocational education as a source of entry-level employees in the current study.

Purpose of the Study

The purposes of the study were to ascertain on a statewide basis employers' perceptions regarding secondary vocational education as a source of entry-level employees and the employers' perception on issues in the new legislation. Statewide data were secured to serve as a systematic means for securing and reporting the initial status as well as providing a bench mark for subsequent assessment measures.

Educational Importance

One of the accountability issues receiving much attention centers around how well employers' needs are being met. Instead of relying on subjective data or data from reports predating the new legislation, Tennessee State Department of Education elected to secure current data from employers. In the absence of a federal model to assist the local systems or the states to secure systematic objective data, the statewide survey instrument was designed. The employers responding included local firms ranging from less than 50 to more than 150 employers.

Limitations

The study is an initial exploration of employers' perceptions pertaining to comparing public secondary high school vocational graduates as entry-level employees to other entry-level employees. Randomly selected secondary vocational-technical teachers preparing students for entry into the work force provided names of employers who had recently hired one of their students. This limitation was deemed important because the majority of the criticism toward secondary vocational education seems to come from large firms which employ only a small percentage of the total population. Further, the majority of vocational education graduates are placed with small firms that are usually not represented on major boards, not politically active, and therefore, rarely have their opinions reported.

The initial employer perceptions will serve as benchmarks for statewide objective comparisons at a later data. Local secondary vocational-technical programs may establish local benchmarks above or below the statewide benchmarks.

Methodology

A survey instrument, Tennessee Employers Vocational Needs Assessment (see Appendix A), was designed to include items of interest in the new legislation as well as to secure ratings for the various types and levels of educational and governmental agencies. Secondary vocational education teachers preparing students to enter the labor market were randomly selected to participate in the study. Each teacher randomly selected was requested to provide the names and addresses of three employers of recent program graduates. The employers received a letter from the Assistant Commissioner for Vocational-Technical Education, a stamped, self-addressed envelope, and the instrument. Follow-up mailings to the teachers and employers have been conducted. The instrument has a Cronbach Alpha internal consistency reliability coefficient of .9366.

Instrumentation and Data Collection

The survey instrument used was developed as a part of a comprehensive study funded by the Tennessee State Department of Education, Division of Vocational-Technical Education for the purpose of collecting statewide information in accordance with requirements of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 and the Tennessee Goals and Objectives of the 21st Century Challenge Plan. The questionnaire was designed to provide information that could be used to improve secondary vocational-technical education programs in Tennessee as well as meet federal and state compliance.

The population of this study was private industry employers who hire graduates of Tennessee secondary vocational education programs. To

properly target this population, it was necessary to focus data collection procedures on those employers who have previously hired vocational education graduates. It was determined that vocational education teachers are best qualified to provide this information; therefore, employers names and addresses provided were by vocational teachers and were used for data collection.

A random sample of vocational education teachers was selected from a list of 1,915 teachers provided by the Tennessee State Department of Education. In an effort to collect an appropriate sample of 382 private industry employers, 650 randomly selected vocational teachers were asked to provide the names and addresses of up to three employers who had recently hired vocational graduates. These employers were then used to represent the population from which the sample was collected.

This sampling technique required a two-stage sampling process. The first stage was to randomly sample the teachers with a letter and return envelope for employers names and addresses followed by a postcard reminder to the non respondents. A follow-up letter was sent to those not responding to the first probe. Administrative staff, vocational directors, and regional representatives from the State Department were contacted to assist in this first stage of data collection.

As a result of this effort, the first stage yielded positive responses from 260 teachers for a 40% response rate. Since teachers listed more than one employer (but no more than three) a total of 680 usable employers names and addresses were collected to provide the sample for the Employer Needs Assessment.

From the sample of 680 employers and subsequent follow-up, 387 questionnaires were collected. Of this number, 383 responses were usable. This effort yielded a response rate of 56.3% and a sample of 383 was deemed large enough to represent all the employers hiring vocational graduates in the state of Tennessee.

Data Analysis

Data were analyzed using the Statistical Analysis System (SAS 90) at the University of Tennessee, Knoxville. Variables were cross tabulated by the size of firm responding to the survey. Data collected from the survey was entered into a floppy disk format and submitted as a batch job for analysis. A data printout was compared with actual data entered to ensure accuracy and completeness. Data deemed to be faulty or in error were omitted from the final analysis. Frequencies, percentages, and analysis of variance were conducted for the final report.

REVIEW OF RELATED LITERATURE

A selected review of the related literature pertaining to employer assessment of the needs of vocational education has been included in this report. The following literature review will briefly address the following areas: employers' perceptions of employee job performance; basic skills training; benefits of vocational education to business and industry; improvement of vocational education; and employability skills.

Employers' Perceptions of Employee Job Performance

In an Arizona study, Montemayer, Hardin, and Reed (1986) asked employers to compare occupational students to academic students. In a summary statement the authors concluded that the employers felt the occupational students were better prepared for the work world than academic students.

Vocational education is meeting the needs of employers and providing students who have mastered the needed reading and math skills according to a study by Crain (1984). The following traits and skills were rated as "extremely important" for their employers by more than half of the respondents: dependability, proper attitude, good team members, basic adult literacy, good judgement, quick learning and basic arithmetic. Specialized knowledge was rated as extremely important by less than one-third of the respondents.

Students who had concentrated in vocational subjects while in high school were more likely to spend more time in the labor force, be paid higher earnings, and have higher rates of production as reported by Campbell and Parnes (1986). The authors concluded that vocational

education graduates should be compared with others like themselves or the results will be biased against vocational education curriculum.

Some conclusions can be made about the traits that employers feel are important for employee job performance and whether or not vocational education is providing skilled workers for the current workforce. The majority of employers would prefer to hire vocational education graduates, providing they knew these graduates were available. Some employers do not know vocational education exists. Vocational education students are better prepared for the world because the majority of these graduates do possess good work habits and positive attitudes. Employees with and without vocational education need to develop their mathematical computation, communication (oral and written), and organizational skills. Employees will meet the expectations and needs of employers today and in the future by combining good work habits and positive attitudes with the skills identified as needing to be developed.

Basic Skills Training

There is a widespread disagreement in the literature with respect to the lack of basic academic skills training for employees. A Nation at Risk (1983) blasted the current educational system by asserting that the poor quality of high school graduates contributed to the declining ability of businesses in the United States to compete with foreign businesses. Some employers are in agreement with the report. Other employers indicated the current education system was good, but it could be improved.

Only 5% of the personnel directors in a nationwide survey by Crain (1984) reported lack of basic skills as a problem. The personnel

directors were more concerned with dependability and proper work attitudes than graduates' grades or quality of the high school attended. Further, the directors felt the majority of the graduates did possess the necessary basic skills and they did not need employees with advanced classes such as chemistry, calculus, physics, literature, or foreign language to insure success in the workplace.

A recent research effort by Gray and Wang (1989) supported the conclusion that young workers, particularly the non-college bound, and small firms are inextricably linked and that vocational-technical education is critical to both. Labor shortages faced by small firms are typically not due to limited numbers of workers since there are ample unemployed or underemployed youth; instead, there is a shortage of workers who are skilled in pertinent areas deemed valuable to these employers. Small employers need entry-level workers with two types of basic skills--basic academic skills and basic vocational skills (Gray, 1989).

Benefits of Vocational Education
to Business and Industry

Two-thirds of the employers responding to a study in Georgia by Stonehouse (1987) said that 50% of new hires needed vocational education training. Less in-house training and money was spent on employees with vocational education training. Vocational education was more important to the employers than computer literacy for 80% of the respondents. More specifically, vocational education in Georgia taught good work habits, increased the awareness of technology, lowered the high school

dropout rate, encouraged economic development, offered training opportunities for the handicapped, and provided retraining for adults.

Cooperative vocational education was considered by Silberman (1986) to be the best form of vocational education because students were able to apply the knowledge and skills learned in the classroom. The cooperative vocational students as employees displayed good work habits and attitudes along with skills that could be generalized to a job experience.

McNelly, Mann, and Petty (1990) in a statewide study in Tennessee, projected the total earnings for students working part-time while in high school. The Tennessee public secondary students working part-time earned over $191,000,000 during the 1989-90 school year. These working students paid $14,561,124 in sales taxes from weekly earning. Cooperative vocational students earned 5.3% more per hour and worked 2.9 more hours each week than the non co-op students. The cooperative vocational students earned $1,127 more than the non co-op students for extended earning over a twelve month period. All students working part-time while in high school are making contributions to local and state governments and to the overall economic welfare. Cooperative vocational education students were earning more income, paying more sales taxes, and had the benefit of regular structured learning experiences and supervision.

Improvement of Vocational Education

Montemayer, Hardin, and Reed (1986) stated that vocational education needed to train students more adequately by offering the following: a) better communications skills (verbal and written)

training, b) more "hands on" training, c) better preparation for job interviews, d) more problem solving training, e) more specialized training in the vocational subject areas, f) an updated "true to life" curriculum, g) more organization and prioritization skills training.

In a University of Missouri-Columbia (Brandt and Ferguson, 1987) longitudinal study of vocational education graduates, several common beliefs surfaced which prompted them to offer suggestions for the improvement of vocational education programs. These included the following: a) provide job related experiences for students, b) offer job interview preparation and experiences, c) make students work harder, d) teach maturity to students, e) encourage further education, f) provide job placement services, g) provide individualized career counseling.

Silberman (1986) concentrated on methods to improve the status of high school vocational education. The following suggestions were offered; a) making vocational education more appealing to a wide range of students (college bound and non college bound) by extending the school year and program offerings, b) raising the quality of teachers by actively recruiting top talent and recruiting business personnel to help teach, c) raising the quality of learning by encouraging students to assume responsibility and work independently, d) offering more field-based experience (especially cooperative education), e) improving management by empowering teachers, and f) establishing trust in teachers.

Stonehouse (1987) offered a few suggestions that would help improve vocational education. These included the following: a) offering

retraining opportunities for teachers, b) providing equipment that is up-to-date and similar to that used in business, c) teaching students how to get and hold a job, d) allowing employers to help with the curriculum, and e) offering qualified graduates with pertinent basic skills training.

Wilms (1984) made recommendations for vocational education reform using applied skills rather than specific skills training. The author suggested that employers be given the opportunity to help with skills training programs and assist in developing curriculum. The needs of small businesses were cited as being particularly pertinent because they will make up the majority of new jobs in the future.

Sawyer (1977) offered a wide variety of suggestions for the improvement of vocational education, yet there was some indecision among the respondents. The following were items upon which the respondents agreed: a) offering career education in junior and high schools, b) offering job entry skills training in trade and industry, c) guiding both males and females toward occupational programs, d) informing parents of the benefits of vocational education, e) increasing funding for updating vocational education programs, f) giving more emphasis in high school to earning a living, g) providing in-service training for vocational educators, counselors, and administrators, h) developing an on-going promotional program directed toward various constituents in the community, i) developing a more dynamic liaison between employers of vocational education graduates, and j) informing junior high school students of the benefits of vocational education program offerings.

In proposing an agenda for both educational and job-training systems to close the domestic and foreign achievement gaps among the youth of the nation, Berlin and Sum (1988) provided specific targets on which to focus immediate efforts. The authors suggested several strategies to effectively combat the perceived problems: a) giving special attention to economically disadvantaged and minority students who are deficient in both basic skills and higher-order thinking skills, b) offering a continuum of service for parents and students due to intergenerational causes of low basic skills, c) addressing the phenomenon of summer learning loss by extending the school year, d) developing standards that hold local institutions accountable but leaving room for local officials to exercise autonomy, e) smoothing the transition from school to work for high school graduates who are not college bound, and f) improving the quality and availability of the nation's second-chance job-training and community college programs.

A recent study by Petty, McNelly, and Searle (1989) revealed the following: a) employers felt the recent secondary vocational graduates had better entry-level work skills than recent graduates without secondary vocational education, b) the majority of employers indicated the secondary vocational graduates had better basic skills than the graduates without secondary vocational education, c) employers were pleased overall with the job performance of the secondary vocational education graduates they had hired, d) employers agreed that the addition of more secondary vocational education programs would be effective in assisting local areas served by secondary vocational education programs, e) equipment and curriculum materials used in

secondary vocational education programs were up-to-date, f) more secondary vocational education programs should focus on helping prevent dropouts, g) more work experience opportunities would help the secondary vocational education program graduate, h) while secondary vocational education is not for all students, high schools should stress more "basics," i) business and industry and local communities were supportive of secondary vocational education, j) employers did not support an increase in funding for secondary vocational education through an increase in property or sales tax, k) subject matter related work experience and a university degree would make the secondary vocational education teacher a better teacher, l) a state teaching license should be required of secondary vocational education teachers, m) secondary vocational education was cost effective for business and industry in reducing training time for entry-level employees, and n) employers opinions were influenced most by knowing someone in secondary vocational education, talking to secondary vocational education teachers, and from hiring employees from secondary vocational education programs.

McNelly, Mann, and Petty (1990) recommended the following: a) high school counselors and administrators should continue to stress the importance of secondary vocational education to all students, especially those at high risk of dropping out, b) the effectiveness of secondary vocational education programs in preparing students for the world of work should be emphasized by counselors and teachers when assisting students in career decisions, c) many secondary vocational education programs that currently do not have cooperative education programs should consider adding such programs in the future, d) high school

administrators hiring new secondary vocational teachers should emphasize the importance of subject matter work experience, e) high school administrators should encourage secondary vocational education teachers to seek university degrees, f) local support from businesses and industries should be sought by local school districts for their secondary vocational education program with emphasis on the cost effectiveness to the community and to the businesses themselves, g) secondary vocational education teachers and high school administrators should be aware of the impact their program and the program's graduates have on opinions formed by local employers, and h) high schools and secondary vocational education programs should keep better records of program graduates job placement.

Employability Skills

Employability skills are probably the most important skills schools can offer their students (Pine and Innis, 1987; Stevenson and Bowers, 1986). And yet, vocational-technical schools have little evidence to support the teaching of employability skills in their curriculum. Most research studies seem to focus on the subjects of effective teaching or new technologies rather than that of employability.

This study has attempted to identify these employability skills as measured by employers. To accomplish this, the review of literature revealed the following salient points related to employability skills. Items used in this survey of employers' needs were reviewed in the literature from several sources. Most of the sources of these employability skills are shown in the following review of related literature.

Value of work. Traditionally, the value of work (pride in work and sense of responsibility) was taught at home within the family unit and throughout the development of young people from, childhood through adolescence (Baker, 1985). Students develop their work values as they grow up. The crucial periods are most commonly seen as the years of secondary education or the beginning college years. These "formative" years determine values for life (commitment to quality and completion of work) (Pine and Innis, 1987).

A commitment to lifelong learning, being achievement oriented, seeking information and assistance, accepting constructive criticism, and following directions are skills that normally develop as a result of the maturation process. This awareness also results in a growing belief that work organizations are obliged, not only or even mainly to make profits, but also to contribute to the quality of life and society. With the rising concern of the welfare of consumers comes a greater awareness of issues pertaining to health, both physical and mental, and the conviction that there is more to life than working (Katzell, 1979).

Zaleznik, Christensen, and Roethlisberger (1958) found that belonging to a work group (respect for others and authority) was an important variable in job satisfaction with regard to their attitude toward work.

The purpose of behavior and an effective working relationships is to achieve or enhance "self-esteem" (Keirsey and Bates, 1984). Porter (1964) revealed that managers considered the higher-order needs of esteem, autonomy, and self-actualization (self-motivating) were most important.

Despite the importance of work attitudes to job survival, it is often overlooked or ignored by teachers because of its non-specific nature in the curriculum and/or the lack of direction from textbooks and other published curriculum materials (Petty and Campbell, 1988). Most vocational educators agree, as pointed out by Kazanas (1978), that work attitudes as well as work values and habits are intrinsic components of work necessary for job survival. The five factors of work attitudes studied were ambition, self-control, organization, enthusiasm, and conscientiousness.

Significant differences in work attitudes were found between health occupations teachers and the other trades and industrial teachers (Petty and Campbell, 1988). The experiences that give rise to attitudes stem from two sources: (1) the experiences of others, transmitted to members of the society via its "culture", and (2) the personal experiences of each individual, largely growing out of the roles and statuses he or she occupies in society (dependable, initiative, integrity, and loyalty). Changes in work attitudes may result from projections of changes in these two sources of experience (Katzell, 1979).

Affective work skills are factors of successful employment often overlooked by vocational educators. These factors (punctual, showing interest, attendance) were mentioned by Kazanas (1978) as intrinsic components of work values, habits and attitudes necessary for job survival (Petty, 1985).

A study by Petty (1985) revealed that students' expectations of affective work competencies were lower than the expectancies of prospective employers. These factors with their major points were:

Ambition--set personal job goals, set personal work goals, improve yourself, learn new skills to advance on the job, and participate in group activities; Self-control--be tolerant, keep cool, calm down, be stable, and be positive toward others; Organization--cleanliness, be organized, keep supplies arranged, and keep records and files in order; Enthusiasm--work toward new goals, pride in accomplishments, accept challenging assignments, complete the job, and adjust to change; Conscientiousness--be diligent, mind your own business, be a self-starter, stick by your word, and be on time.

A study by Stevenson and Bowers (1986) showed that: there is a strong desire on the part of employers to hire job applicants who have some job skills and a positive work attitude (well groomed and friendly); the basics are important only to the extent and in the form required to perform on the job; writing and speaking (communicating--listening, communicating--speaking, communicating--writing, organizing information and ability to work in teams) as well as interpersonal skills (problem solving, reasoning, and goal setting), appearance, and personal life skills were considered to be advantageous but not essential by more than half of the employers interviewed.

FINDINGS

Three sizes of businesses were used as independent variables for comparative purposes. To determine the size of businesses responding to this survey, employers were asked to indicate the number of local employees for their firm. Of the 383 returns, 175 were small businesses indicating they had less than 50 employees, 101 were medium-sized businesses indicating they had 50 to 150 local employees, and 104 were large-sized firms indicating they had more than 150 employees. Three did not respond to this question.

The second item of the survey asked an open-ended question to determine the number of entry-level persons hired the past year. The range of responses was from 0 to 999, with an average of 33.76 hired. Small businesses hired an average of 4.03. Medium businesses hired an average of 24.38, and large businesses hired an average of 98.33. There was 1 "no responses," or indicated, "no new persons hired."

For purposes of reporting, the survey findings were divided into nine parts and data were reported and compared by small, medium, and large employers. These findings are reported in the following tables: Table 1--Rating of the value of various sources for finding new entry-level employees; Table 2--Rating of the value of different types of training for entry-level employees; Table 3--Rating of the value of the different types of educational background for entry-level employees; Table 4--Rating of the value of entry level skills for secondary vocational graduates to other entry-level employees; Table 5--Desirability of each location for training local employees; Table 6--Value of selected sources in meeting labor market needs; Table 7--Rating

of local secondary vocational technical programs; Table 8--Rating of high schools involvement in selected activities; Table 9--Importance of general employment skills for employees.

These tables reveal the analysis of variance for each item as compared by the size of firm. Items with significant differences at the .05 level or beyond are indicated with a double asterisk. Included with each table are the mean ratings to indicate how the item was rated by size of firm.

Table 1 reveals that the larger the firm the greater the value of help wanted advertisements, college placement, employment agencies, and employment security for finding new entry-level employees for the firm. These four items had an "F" value greater than .05 significant difference. Walk-ins, post-secondary vocational programs, and JTPA experiences indicate there is no significant difference in value for locating new entry-level employees by any size firm (see Table 1).

The fifth item with significant differences was for secondary vocational education programs. Table 1 also demonstrates that secondary vocational education programs are more valuable for the smaller firms than larger firms in finding new entry-level employees. However, these programs are ranked second as a primary source by medium-sized organizations and, first as a source by firms employing more than 150 employees. Employment agencies were rated the lowest as a source of finding new entry-level employees by firms with less than 50 and 50 to 150 employees. Job Training Partnership (JTPA) had the lowest mean rating for firms with more than 150 employees.

Table 1

Rating of the Value of Various Sources for Finding New Entry-Level Employees by Size of Firm

Item	Size of Firm Mean Ratings: Less Than 50 Employees	50 to 150 Employees	More Than 150 Employees	PR>F
Rate the value of the following sources for finding new entry-level employees for your firm.				
Help wanted advertisements	1.94*	2.09	2.33	0.0130**
Walk-ins	2.11	2.35	2.36	0.0685
Secondary vocational education programs	2.82	2.56	2.56	0.0068**
Post-secondary vocational programs	2.43	2.67	2.47	0.4041
Job Training Partnership Act (JTPA)	1.94	1.74	1.93	0.2992
College placement	1.89	1.90	2.30	0.0012**
Employment agencies	1.66	1.67	2.00	0.0022**
Employment Security	1.77	1.94	2.09	0.0175**

Note: * Likert Scale 1 = Poor to 4 = Very Good

** F-Value greater than .05 level of significance

All employers agreed that previous work experience in a similar job was the most valuable training and rated that item in excess of 3.0 on the 1.0 to 4.0 scale of value (see Table 2). Additionally, all employers indicated that the second most valuable type of training was high school vocational education which was closely followed in the third position of importance by secondary cooperative educational experiences.

Previous work experience had the highest mean values by all sized firms. The second highest mean values by all sized firms were on high school vocational education. The third highest mean values for all sized firms were on secondary cooperative vocational education. The least valuable type of training for all sized firms' entry-level employees was JTPA.

Table 2

Rating of the Value of Different Types of Training for Entry-level Employees by Size of Firm

Item	Size of Firm Mean Ratings: Less Than 50 Employees	50 to 150 Employees	More Than 150 Employees	PR>F
Rate the value of the following types of training for your firm's entry-level employees.				
Secondary cooperative vocational education	2.69*	2.63	2.64	0.8911
Apprenticeship	2.50	2.44	2.46	0.9091
Previous work experience in a similar job	3.00	3.15	3.07	0.2835
Previous work experience not in a similar job	1.95	2.21	2.17	0.0010**
JTPA	1.84	1.71	1.83	0.6048
Post-secondary vocational education	2.40	2.47	2.70	0.0515
High school vocational education	2.85	2.80	2.65	0.1422

Note: * Likert Scale 1 = Poor to 4 = Very Good

** F-Value greater than .05 level of significance

Two items had significant difference for two-year area vocational school certificate programs and two-year technical community college degrees on rating the value of the different types of educational background for entry-level employees (see Table 3). The larger the size of the firm, the more valuable was increased educational preparation or concentration in area schools or post-secondary settings. The highest mean values for firms with less than 50 employees and firms with 50 to

Table 3

Rating of the Value of the Different Types of Educational Background for Entry-Level Employees by Size of Firm

Item	Size of Firm Mean Ratings: Less Than 50 Employees	50 to 150 Employees	More Than 150 Employees	PR>F
Rate the value of the following types of educational background for your firm's entry-level employees.				
High school diploma	3.17*	3.16	3.11	0.7061
GED	2.52	2.47	2.51	0.3242
1 year skills training in secondary vocational education	2.70	2.63	2.77	0.2847
2 years skills training in secondary vocational education	2.91	2.92	3.04	0.6852
2 year area vocational school certificate	2.82	2.88	3.16	0.0097**
2 year technical community college degree	2.74	2.90	3.17	0.0058**

Note: * Likert Scale 1 = Poor to 4 = Very Good

** F-Value greater than .05 level of significance

150 employees were for high school diploma. The highest mean value for firms with more than 150 employees was for a two-year technical community college degree. The lowest mean values for all sized firms were for G.E.D.

No significant differences were found for all sized firms on rating the value of entry-level skills for secondary vocational graduates to other entry-level employees (see Table 4). The lowest mean value was 2.75 on basic academic skills for firms with more than 150 employees. All sized firms' mean values were above adequate and approaching good for rating the value of entry-level skills for secondary vocational graduates to other entry-level employees.

Table 4

Rating of the Value of Entry-Level Skills for Secondary Vocational Graduates to Other Entry-Level Employees by Size of Firm

Item	Size of Firm Mean Ratings: Less Than 50 Employees	50 to 150 Employees	More Than 150 Employees	PR>F
Rate the value of entry-level skills for secondary vocational graduates to other entry-level employees in the following areas.				
Quantity of work	2.80*	2.81	2.88	0.6168
Quality of work	2.93	2.94	2.89	0.4999
Job related technical skills	2.81	2.89	2.94	0.2704
Basic academic skills	2.76	2.81	2.75	0.3822
General employment skills	2.78	2.81	2.76	0.9673

Note: * Likert Scale 1 = Poor to 4 = Very Good

No Significant Differences

The highest mean value 2.94 was for firms with 50 to 150 employees for quality of work and for firms with more than 150 employees for job related technical skills. For firms with less than 150 employees, the highest mean value (2.93) was for quality of work. All sized firms' mean values were above adequate for rating the value of entry-level skills for secondary vocational graduates to other entry-level employees on the following areas: quantity of work, quality of work, job related technical skills, basic academic skills, and general employment skills.

One item, desirability of training in a technical institute, was significantly different for the different sized firms (see Table 5). The most desirable location was on the job site for all sized firms as

Table 5

Desirability of Each Location for Training Local Employees by Size of Firm

Item	Size of Firm Mean Ratings: Less Than 50 Employees	50 to 150 Employees	More Than 150 Employees	PR>F
From your perspective, how desirable is each location for training your local employees?				
On the job site	3.39*	3.38	3.45	0.2462
Local high school classroom	2.41	2.29	2.25	0.3789
Local high school laboratory	2.31	2.23	2.19	0.6991
Area vocational school	2.82	2.84	2.92	0.4689
Community college	2.62	2.77	2.79	0.2582
Technical institution	2.72	2.78	2.93	0.0359**

Note: * Likert Scale 1 = Poor to 4 = Very Good

** F-Value greater than .05 level of significance

the location most desirable for training local employees. The second most desirable training location for all sized firms was the area vocational school. The third most desirable location for all sized firms was the technical institute. The least desirable location for all sized firms was the local high school laboratory.

No significant differences were found by size of firm on rating the value of each person listed in working with them to meet their labor market needs (see Table 6). The secondary vocational-technical teacher had the highest mean values for all sized firms for working with them to meet their labor market needs. JTPA had the lowest mean values, below adequate, for all sized firms for working with them to meet their labor market needs.

Two of the three items pertaining to relevance of local secondary programs were significantly different for the three categories by size of firm. For the item, relevance to the workplace and to occupations for which students are to be trained, the smaller sized firms had higher mean values than the firms with more than 150 employees. The second significant item--the extent to which local programs are realistic for areas of emerging technologies--also had higher mean values for the smaller sized firms than the firms with more than 150 employees.

Table 6

Value of Selected Sources in Meeting Labor Market Needs by Size of Firm

Item	Size of Firm Mean Ratings: Less Than 50 Employees	50 to 150 Employees	More Than 150 Employees	PR>F
How valuable has each of the following been in working with you to meet your labor market needs?				
Secondary vocational-technical teacher	2.87*	2.59	2.67	0.1038
Secondary vocational administrator	2.50	2.33	2.51	0.4463
Post-secondary vocational-technical teacher	2.37	2.30	2.46	0.6301
Post-secondary vocational-technical administrator	2.20	2.19	2.44	0.1026
JTPA	1.85	1.82	2.01	0.2769

Note: * Likert Scale 1 = Poor to 4 = Very Good

No Significant Differences

The highest mean (2.86) in Table 7 was for firms with less than 50 employees on rating the local secondary vocational-technical programs for relevance to the workplace and to occupations for which students are to be trained. Also above adequate was the mean rating for firms with less than 50 employees for the extent to which local firms are realistic for current and future labor market needs and the extent to which local programs are realistic for areas of emerging technologies. Two mean values were below 2.5 on the item--the extent to which local programs are realistic for areas of emerging technologies for firms with 50 to

150 employees, and more than 150 employees. The mean values were above adequate or 2.0 on the four-point Likert scale.

Table 7

Rating of Local Secondary Vocational-Technical Programs by Size of Firm

Item	Size of Firm Mean Ratings: Less Than 50 Employees	50 to 150 Employees	More Than 150 Employees	PR>F
Local secondary vocational-technical education programs must be regularly evaluated. In order to remain relevant to the labor market needs of employers, please rate your local secondary vocational-technical programs for:				
Relevance to the workplace and to occupations for which students are to be trained.	2.86*	2.60	2.54	0.0054**
The extent to which local programs are realistic for current and future labor market needs.	2.71	2.52	2.51	0.1538
The extent to which local programs are realistic for areas of emerging technologies.	2.58	2.38	2.28	0.0469**

Note: * Likert Scale 1 = Poor to 4 = Very Good

** F-Value greater than .05 level of significance

Employers responded to a variety of items and rated the extent high schools should be involved on a Likert scale that ranged from a value of 1 = None to 9 = Great Extent. Of the eleven items in Table 8, one had a significant difference for the three sizes of firms. For the item--to what extent should high schools place equal emphasis on placement into

Table 8

Rating of High Schools Involvement in Selected Activities by Size of Firm

Item	Size of Firm Mean Ratings: Less Than 50 Employees	50 to 150 Employees	More Than 150 Employees	PR>F
To what extent should high school(s):				
Place equal emphasis on placement into employment and continuing education?	7.36*	7.51	7.38	0.0022**
Offer basic academic skill enhancement courses in addition to specialized vocational-technical education courses?	7.55	7.85	7.71	0.2733
Vocational-technical education programs set entry-level academic skill standards for getting into a vocational-technical education program?	6.93	7.10	7.07	0.5716
Vocational-technical education programs increase the job skills attainment for their students?	7.30	7.54	7.43	0.4132
Vocational-technical education teachers provide a job skill attainment profile for each student?	7.13	7.36	7.09	0.4317
Expand their existing vocational-technical curriculum for all aspects of the industry the students are preparing to enter?	7.18	7.43	7.62	0.1235
Provide more career information and experiences before requiring the students select a vocational-technical education program?	7.52	7.89	7.76	0.2260
Special Education classes for handicapped students reinforce vocational-technical education job skills?	6.78	6.94	7.10	0.3575
Special education classes for handicapped students teach general employment skills.	6.85	7.05	7.30	0.1748
Offer disadvantaged (below academic skill level) students basic skill remediation through regular academic courses?	6.95	7.18	7.39	0.1553
Reinforce general employment skills through regular academic courses for disadvantaged (below academic skill level) students?	6.93	7.18	7.14	0.4609

Note: * Likert Scale 1 = None to 9 = Great Extent

** F-Value greater than .05 level of significance

employment and continuing education, the firms with 50 to 150 employees had the highest mean value (7.51) and the firms with less than 50 employees had the lowest mean value (7.36).

For the firms with less than 50 employees, the three highest mean values in descending order were: offer basic academic skill enhancement courses in addition to specialized vocational-technical education courses, provide more career information and experiences before requiring the students select a vocational-technical education program, and place equal emphasis on placement into employment and continuing education. Three highest mean values in descending order for firms with 50 to 150 employees were: provide more career information and experiences before requiring the students select a vocational-technical education program, offer basic academic skill enhancement courses in addition to specialized vocational-technical education courses, and place equal emphasis on placement into employment and continuing education. For firms with more than 150 employees, the three highest mean values in descending order were: provide more career information and experiences before requiring the students select a vocational-technical education program, offer basic academic skill enhancement courses in addition to specialized vocational-technical education courses and expand their existing curriculum for all aspects of the industry the students are preparing to enter.

The lowest mean ratings for all sized firms were on the item--special education classes for handicapped students reinforce vocational-technical education job skills. The three mean values were 6.78 for less than 50, 6.94 for 50 to 150, and 7.10 for firms with more than 150

employees. These mean values are toward the upper range of the Likert scale and indicate the high schools should have special education classes for handicapped students reinforce vocational-technical education job skills.

The respondents from the three sized firms were not significantly different on the remaining items with values in the upper range of the Likert scale. By virtue of the high mean values, they were in agreement that high schools should:

- Set vocational-technical education program entry-level academic skill standards for getting into a vocational-technical program.
- Increase the job skill attainment for the students in vocational-technical education programs.
- Provide a job skill attainment profile for each student in vocational-technical education.
- Teach general employment skills to handicapped students in special education classes.
- Offer disadvantaged (below academic skill level) students basic skill remediation through regular academic courses.
- Reinforce general employment skills through regular academic courses for disadvantaged (below academic skill level) students.

A list of general employment skills were included in the survey form. The general employment skill items came from many articles and studies involving employers. The responding employers recognize the importance of general employment skills for their employees. The employers rated the importance of the general employment skills for entry-level employment. The rating values ranged from 1 = Not Important

to 9 = Very Important. Table 9 reports the employer ratings of importance on the general employment skills for entry-level employment by size of firm.

Significant differences by size of firm were determined for the following items: pride in work, commitment to quality, well groomed, friendly, goal setting, priority setting, conceptualizing the problem, creative thinking, coping skills, and communicating--listening. Of the ten general employment skill items with significant differences by size of firm, those with less than 50 employees had higher mean ratings than the other two categories on five items. Firms with more than 150 employees had higher mean ratings on two of the items and firms with 50 to 150 employees had higher mean ratings on the remaining three items. Firms with more than 150 employees had the lowest mean rating on seven of the items, and firms with less than 50 employees had the lowest mean ratings on the remaining three items that had significant differences by size of firm.

All general employment skill items had mean ratings of 7.5 and above by each sized firm. All items have been validated as important for entry-level employment for all employers in Tennessee. An analysis by each category of firm size reveals similar rankings as measured by the mean ratings. In descending order, the five highest rated items by firms with less than 50 employees are as follows: dependable, attendance, commitment to quality, sense of responsibility and pride in work (tie), and follows directions. For firms with 50 to 150 employees, the highest rated items as measured by the mean ratings in descending order are: commitment to quality and attendance (tie), dependable,

Table 9

Importance of General Employment Skills for Employees by Size of Firm

Item	Size of Firm Mean Ratings: Less Than 50 Employees	50 to 150 Employees	More than 150 Employees	PR>F
Pride in work	8.50*	8.77	8.65	0.0356**
Commitment to quality	8.52	8.79	8.81	0.0029**
Work completion	8.44	8.51	8.36	0.4606
Sense of responsibility	8.50	8.59	8.59	0.5678
Commitment to lifelong learning	7.58	8.00	7.71	0.0996
Achievement oriented	7.65	7.94	7.74	0.2026
Seeks information	7.87	7.85	7.76	0.7869
Seeks assistance	7.77	7.99	7.67	0.2199
Accepts constructive criticism	7.97	8.03	7.88	0.7250
Follows directions	8.48	8.48	8.44	0.9190
Respect for others	8.43	8.51	8.44	0.4007
Respect for authority	8.38	8.39	8.33	0.6015
Self-esteem	8.25	8.36	8.20	0.1489
Self-motivating	8.32	8.22	8.37	0.6605
Enthusiastic	8.16	8.21	8.24	0.8382
Dependable	8.69	8.78	8.75	0.6688
Initiative	8.08	8.21	8.10	0.5629
Integrity	8.32	8.50	8.31	0.4642
Loyalty	8.17	8.29	8.08	0.4890
Punctual	8.49	8.55	8.47	0.8405
Shows interest	8.18	8.10	8.14	0.2307

Table 9, Continued

Importance of General Employment Skills for Employees by Size of Firm

Item	Size of Firm Mean Ratings: Less Than 50 Employees	50 to 150 Employees	More than 150 Employees	PR>F
Attendance	8.66*	8.79	8.68	0.4444
Well groomed	7.87	7.83	7.44	0.0479**
Friendly	8.08	7.93	7.57	0.0029**
Problem solving	7.48	7.56	7.47	0.3009
Reasoning	7.67	7.82	7.65	0.1249
Goal setting	7.63	7.59	7.44	0.0001**
Priority setting	7.77	7.63	7.56	0.0051**
Conceptualizing the problem	7.53	7.60	7.28	0.0059**
Creative thinking	7.53	7.49	7.31	0.0203**
Coping skills	7.61	7.62	7.62	0.0136**
Communicating--listening	8.47	8.53	8.34	0.0138**
Communicating--speaking	7.86	7.99	7.77	0.3596
Communicating--writing	7.33	7.19	7.44	0.6258
Organizing information	7.47	7.49	7.18	0.1486
Ability to work in teams	8.30	8.39	8.35	0.5970

Note: * Likert Scale went from 1 = Not Important to 9 = Very important

** F-Value greater than .05 level of significance

pride in work, sense of responsibility, and punctual. For firms with more than 150 employees, the highest rated items as measured by mean values in descending order are: commitment to quality, dependable, attendance, pride in work, and sense of responsibility.

CONCLUSIONS, RECOMMENDATIONS, AND IMPLICATIONS

Secondary vocational education programs have been praised and criticized by a variety of studies and critics. Some criticism comes from private industry employers who rarely hire secondary students as entry-level employees. Unfortunately for vocational education, these employers' comments are highly publicized. For this study it was important that the employers responding be qualified upon the basis of having recently hired secondary vocational-technical graduates. This qualification assured that the responding employers were familiar with graduates from the secondary vocational-technical programs. Additionally, the employers surveyed in this study had a framework for making comparisons and judgments with respect to their relative value for the items in the survey.

Furthermore, the employers' responses were reported by size of firms--small, medium, and large--based on the number of local employees for their respective firms. This was important since the majority of entry-level jobs in Tennessee are with smaller firms.

The stratified random sampling procedures utilized and the resultant follow-up yielded 383 usable survey forms. This criteria enabled the researchers to make inferences to 76,000 employers. This number is sufficient to represent all employers hiring secondary vocational graduates in Tennessee.

The responses by the employers have been analyzed and reported on each item on the survey. While the majority of the responses were deemed as "adequate" or above for secondary vocational-technical for each item, it should not be interpreted to mean that there is no room or

need for improvement. The structure of most of the questions in the survey call for judgments about secondary vocational-technical education along with other types of educational institutions or service agencies as sources of employees for entry-level jobs. The value of secondary vocational-technical education as a source of entry-level employees is relative to the other institutions or service agencies.

In addition to establishing the current value of secondary vocational-technical programs as a source of entry-level employees, the findings may be used as initial benchmarks as a basis for measuring progress over time. The new legislation does require needs assessments at the local and statewide level as vehicles for accountability, relevance, and improvements over time.

Findings from this study should be reviewed along with the statewide studies from vocational teachers, administrators and special needs teachers. This procedure is essential to gain a comprehensive profile of the needs and current standing of secondary vocational-technical programs in the state of Tennessee.

Significant differences were reported between the ratings by size of firm on the respective items in the survey. The findings suggest more items of which there were no statistical difference between the employers than items with statistical difference.

Conclusions:

Small and large sized firms valued secondary vocational-technical programs as a source for finding new entry-level employees above the other sources. The medium-sized firms valued post-secondary above the other sources. However, JTPA, employment agencies, and Employment Security were least valued by the employers as sources of new entry-level employees. The following generalizations are warranted.

The larger the firm the more they value:

a) help-wanted advertisements.
b) walk-ins.
c) college placement.
d) Employment Security.

The larger the firms the more they value other sources for finding new entry-level employees in addition to secondary vocational-technical education.

Recommendations and Implications:

Secondary vocational-technical education should be recognized for providing entry-level employees who are valued by all employers. Local needs assessments should identify specific areas for improvement. Constructive program improvements should enable secondary vocational-technical programs to remain as the highest valued source for finding new entry-level employees. The larger firms may not be able to secure the number of entry-level employers from the local secondary vocational-technical programs and must reach out to other institutions and agencies. Also, the larger firms may desire a larger pool of potential employees before making a hiring decision.

JTPA programs should be evaluated to ascertain why they were the lowest valued source for new entry-level employees by the small- and large-sized firms.

Conclusions:

Previous work experience in a similar job is the highest valued type of training by all employers for entry-level employees. Secondary vocational-technical and cooperative education are valued as types of training by all employers. JTPA is the least valued type of training for all employers for entry-level employees.

Recommendations and Implications

Related work experiences should be expanded for secondary students enrolled in secondary vocational-technical education courses. Secondary cooperative vocational education should continue to insist on co-op training stations related to student career objectives and current, job-related vocational programs.

Another study should be conducted to ascertain why JTPA was the least valued type of training by all employers for entry-level employees.

Conclusions:

The majority of the employers in Tennessee--both small- and medium-sized firms--valued a high school diploma over the other types of listed educational backgrounds. The larger firms valued two-year technical community college degrees over the other types of listed educational backgrounds. The majority of the employers in Tennessee--small- and medium-sized firms--valued two-year skill training in secondary vocational education the highest. Employers in Tennessee value the high school diploma, two-year skills training in secondary vocational-technical schools and two-year technical community degrees as types of educational background for entry-level employees. Large firms value the two-year area vocational school certificate and two-year technical community degree more than the small- and medium-sized firms.

Recommendations and Implications:

Secondary education diplomas and two-year skills training in secondary vocational-technical education should be recognized for providing valued entry-level employees for the majority of jobs and employers in the state of Tennessee. Larger firms may need more advanced vocational-technical skills for entry-level employees.

High schools should allow all students to prepare for entering the work force after high school graduation. Previous studies have shown that a small percentage of high school graduates who seek a four-year college degree actually graduate. The percentage is even smaller for students seeking a two-year college degree. College dropouts need employable skills when they enter the workforce. The desirability as employees of these dropouts from college will be enhanced with two-years skill training in secondary vocational-technical education.

Conclusions:

The majority of employers in Tennessee have rated the value of secondary vocational-technical education employees over other entry-level employees. Employers from all sized firms consistently rated the secondary vocational-technical graduates over other entry-level employees. The areas being rated were quantity of work, quality of work, job related technical skills, basic academic skills and general employment skills.

Recommendations and Implications:

Secondary schools should continue their efforts to improve vocational programs. Increased input from employers pertaining to their needs will help focus improvements needed which should assist vocational-technical programs to graduate students who remain highly valued as employees.

Secondary vocational-technical administrators and teachers should be recognized for providing entry-level employees who are highly valued by the majority of the employers in Tennessee. Secondary students should also be informed how Tennessee employers have valued secondary vocational-technical education graduates as entry-level employees. The secondary vocational-technical students should especially be made aware of this pertinent fact.

Conclusions:

The majority of the employers in Tennessee have rated on-the-job site as the most desirable for training local employees. The small- and medium-sized firms rated the area vocational-technical schools second whereas the large firms desired technical institutes. The least desirable training sites for employees were the local high school classrooms and labs.

Recommendations and Implications:

The secondary schools should be pleased with the above conclusions pertaining to desirability of training sites. Secondary schools have not had as one of their major missions to train or retrain local employees. However, post-secondary education institutions emphasize this type of training as a major mission statement. In addition, the post-secondary institutions' funding has encouraged working with local firms and employers which is not the case for secondary schools. The state and federal funds to conduct training at local secondary schools have been minimal.

Employers may prefer on-the-job sites for convenience and specific skill development on their own equipment. Local secondary schools and post-secondary institutions cannot duplicate all of the equipment used by all of the employers.

Local secondary systems with strong adult programs should be encouraged to continue offering vocational and avocational courses and programs. As a generalization, the local secondary schools are probably more convenient with respect to location and transportation. Also, meeting the needs of local citizens through adult courses and programs should be viewed as excellent opportunities for public relations and involvement.

Conclusions:

The secondary and post-secondary teachers were more valued than secondary and post-secondary administrators for working with Tennessee employers to meet labor market needs. Secondary teachers and administrators were more valued than post-secondary teachers and administrators for working with Tennessee employers to meet labor market needs. JTPA was consistently rated least valuable by Tennessee employers for working with them to meet labor market needs.

Recommendations and Implications:

All secondary and post-secondary vocational-technical teachers and administrators should be encouraged to continue working with employers to meet their labor market needs.

As local educational systems develop their plans to respond to the required needs assessments, teachers and administrators will have opportunities to work with a variety of employer groups.

The vocational-technical teachers should be encouraged and given active institutional support for meeting with the employers. This would maximize the number of contacts and give the teachers more information to consider for program changes. Strategies for improvements should be available as a result of working with employers in meeting their labor market needs.

Conclusions:

Secondary vocational-technical programs are relevant to:

- the workplace.
- occupations for which students are to be trained.
- current labor market needs.
- future labor market needs.
- areas of emerging technologies.

The larger the firm the less secondary vocational-technical education is relevant for the above areas. The secondary vocational-technical programs are relevant to the majority of the entry-level jobs in Tennessee.

Recommendations and Implications:

Secondary vocational-technical education should continue to be responsive to program changes in order to remain relevant to employers needs. Recent reform initiatives in Tennessee are in harmony with the initiatives in the new legislation which should assist local secondary vocational-technical programs to improve and earn better ratings from the employers in the future.

Conclusions:

Even though a significant difference was found between the employers placing equal emphasis on placement into employment and continuing education, all mean values were above 7.36 on a nine-point Likert scale. The employers are supportive of high schools placing equal emphasis on placement into employment and continuing education.

Recommendations and Implications:

Placement into employment should be given equal emphasis to placement into continuing education for Tennessee high school students. This may require a major reallocation of effort within some high schools.

High school counseling programs should include placement into employment as a major function on an equal basis with current efforts for placing students into continuing education. Secondary vocational technical teachers are presently having to provide placement into employment during hours beyond the normal school day. Placement into employment should be orchestrated through one centralized operation for equal access to comprehensive placement services.

Handicapped and disadvantaged students should receive additional placement into employment services. Handicapped and disadvantaged students are more difficult to place into employment than non-handicapped or disadvantaged students. Special education funds should be allocated to provide extra placement services for the handicapped. The additional burden for placement into employment for the handicapped and disadvantaged should be a total high school effort.

Conclusions:

Tennessee employers are strongly supportive of high schools offering basic skill enhancement courses in addition to specialized vocational-technical education courses. The larger the firm the more they are supportive of offering basic skill enhancement courses other than vocational-technical courses.

Recommendations and Implications:

Additional intervention efforts should be available for disadvantaged (under skill level) students before the disadvantaged high school students are enrolled into a vocational program. Basic academic skill enhancement should not be the burden for secondary vocational education, but be a total high school goal. Additional basic academic skill enhancements beyond secondary vocational-technical education should enable the high school student to exit with better basic academic skills desired by the employers.

Conclusion:

Entry-level academic skill standards for getting into vocational-technical education programs are supported by the employers.

Recommendations and Implications:

Entry-level academic skill standards should be established for entry into vocational programs. This is not to imply access should not be provided if students do not have the desired entry-level academic skills. Entry-level standards would provide a discrepancy profile between desired and existing academic skill levels. Some of the secondary vocational-technical programs require fairly high math and reading skills. A skills discrepancy analysis would assist counselors and other educational professionals in providing valid assessments of student performance.

Conclusion:

Tennessee employers are strongly supportive of secondary vocational-technical education programs increasing job skill attainment for their students.

Recommendations and Implications:

Secondary vocational-technical teachers should increase the expectations from the students and help them to attain higher expectations. Secondary vocational-technical education students have responded favorably at pilot sites throughout the Southeast where requirements and expectations were raised. Secondary vocational-teachers would need to continue to provide relevant curriculum with practical applications, along with a positive learning environment, to help the students to identify with why the skills and knowledge are needed. Once a core of required competencies are made known and mastery level tests are implemented, the students should be able to identify with the increased expectations.

Conclusion:

Each employer group was supportive of the vocational-technical education teachers providing a job skill attainment profile.

Recommendations and Implications:

Job skill attainment profile should be provided each secondary vocational-technical education student. The job skills profile would better communicate to employers what was mastered while in school compared to a letter grade. Secondary vocational-technical program graduates should be able to share their profiles for job interviews with employers. Students would be motivated to have a good profile which should assist them in gaining entry-level employment.

Conclusions:

All employers were supportive of expanding the curriculum. The larger the size of firm, the more they are supportive of the expansion.

Recommendations and Implications:

The suggested areas to be added are: planning, management, finances, technical skills, production skills, underlying principles of technology, labor issues, community issues, health, safety, and environmental issues. The suggested areas for expansion would probably be better covered during the second or third year of a given program. A balance would need to be established between the basic competencies and advanced competencies.

Conclusions:

All employers are strongly supportive of providing more career information and experiences before requiring the students to select a vocational-technical program.

Recommendations and Implications:

All secondary schools in Tennessee should include more career information and experiences. The quality of any decision is directly proportional to the quality of inputs. Minimal information and experiences will continue to produce less than desirable career choices. Secondary students should be able to select a program area on the basis of interest and aptitude. Better informed career selection decisions would improve student motivation while enrolled in a secondary vocational-technical program. More career information and experiences would greatly assist special education students.

This may assist in reducing the number of handicapped students expressing the intention of going to college.

Conclusion:

Employers are supportive of special education classes reinforcing vocational-technical education job skills.

Recommendations and Implications:

Special education classes for handicapped students enrolled in secondary vocational-technical programs should reinforce vocational-technical job skills. By reinforcing vocational-technical job skills, handicapped students would have the benefit of relevant curriculum which would help prepare them for job entry. Special education teachers should infuse practical, relevant vocational-technical subject matter into their classes rather than teaching traditional academic materials.

Conclusions:

All employers are supportive of special education teachers teaching general employment skills to handicapped students. The larger the firm the more they are supportive of special education teachers teaching general employment skills.

Recommendations and Implications:

All secondary handicapped students should learn general employment skills that are taught by special education teachers. General employment skills have always been important for employees, especially for new entry-level employees. Most new workers lost their jobs within the first two weeks of employment due to poor general employment skills. Teaching general employment skills should not be the sole burden of vocational-technical education. Secondary special education personnel should be helping handicapped students to become more successful in gaining and maintaining employment.

Conclusions:

Employers are supportive of disadvantaged (below skill level) students receiving basic skill remediation through regular academic classes. The larger the firm the more they are supportive of regular academic courses remediating basic skill deficiencies.

Recommendations and Implications:

Disadvantaged (below academic skill level) students should receive basic skill remediation through regular academic courses. Each regular academic teacher has opportunities every day to make certain all of his/her students are learning the content, concepts or facts before going on to more complex lessons. Earlier intervention for disadvantaged learners would relieve part of the burden on secondary vocational education. The lack of basic skills is not a vocational problem, it is a total school problem. Every individual has dignity and value and should be given extra intervention before enrolling in vocational-technical education. Extra intervention should be early enough to help keep the educational problem(s) from magnifying.

Conclusions:

Employers are supportive of general employment skills being reinforced through regular academic courses for disadvantaged (below academic skill level) students. The larger the firm the more they are supportive of reinforcing general employment skills for disadvantaged students through regular academic courses.

Recommendations and Implications:

Regular academic courses should reinforce general employment skills for disadvantaged students. Relevant curriculum and general employment skills would have practical applications to assist in helping the disadvantaged to relate to the content and thus with academic lessons. Abstract academic exercises are not the best curriculum for disadvantaged learners. Practical applications are better for disadvantaged learners. Regular academic teachers have access to students 91% of the time in high school where students earn two credits out of twenty-two in vocational education.

Conclusions:

All employers are strongly supportive of including the 36 general employment skills in the state curriculum guides.

Recommendations and Implications:

The 36 general employment skills should be included in all secondary vocational-technical curriculum guides. The general employment skills with significant differences by size of firm all had mean values above 8.34 on a Likert scale with an upper range of 9 for very important. The significant differences are not as important as the magnitude of mean values. The 36 general employment skills have been validated by the employers

in Tennessee. The difficult part will be deciding on balancing the general employment skills with the technical skills. When core competencies are established for each program area, the general employment skills should be included.

The following general employment skills had the highest mean values and should be given special attention: pride in work, commitment to quality, sense of responsibility, follows directions, respect for others, dependable, punctual, attendance, and communicating-listening.

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APPENDIX A

TENNESSEE

VOCATIONAL

NEEDS

ASSESSMENT

1. This survey is funded by the Tennessee State Department of Education, Division of Vocational-Technical Education, for the purpose of collecting state-wide information in accordance with requirements of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 and the Tennessee Goals and Objectives of the 21st Century Challenge Plan.

2. Your participation is very important. Please complete the survey form and return it in the enclosed stamped, self-addressed envelope.

Employer Needs Assessment

There are no right or wrong answers. Each completed survey will be confidential; only collective state-wide data will be reported. Your responses are very important, please take the time to complete and return the survey in the next five working days.

Section A

1. Number of local employees for your firm? (please select only one)

   ____ Less than 50

   ____ 50 to 150

   ____ More than 150

2. Number of entry-level persons hired last year? (please write in the number)

   _____

3. Rate the value of the following sources for finding **new entry-level** employees for your firm. 4 = Very Good, 3 = Good, 2 = Adequate, 1 = Poor
   Please circle one number per item.

		Poor	Ade-quate	Good	Very Good
A.	Help wanted advertisements	1	2	3	4
B.	Walk-ins	1	2	3	4
C.	Secondary Vocational Education Programs	1	2	3	4
D.	Postsecondary Vocational Programs	1	2	3	4
E.	Job Training Partnership Act (JTPA)	1	2	3	4
F.	College placement	1	2	3	4
G.	Employment agencies	1	2	3	4
H.	Employment Security	1	2	3	4

4. Rate the value of the following types of training for your firm's **entry-level** employees.

A.	Secondary Cooperative Vocational Education	1	2	3	4
B.	Apprenticeship	1	2	3	4
C.	Previous work experience in a similar job	1	2	3	4
D.	Previous work experience not in a similar job	1	2	3	4
E.	JTPA	1	2	3	4
F.	Postsecondary vocational education	1	2	3	4
G.	High school vocational education	1	2	3	4

		Poor	Ade-quate	Good	Very Good
5.	Rate the value of the following types of educational background for your firm's **entry-level** employees.				
	A. High school diploma	1	2	3	4
	B. GED	1	2	3	4
	C. 1 year skills training in secondary vocational education	1	2	3	4
	D. 2 years skills training in secondary vocational education	1	2	3	4
	E. 2 year area vocational school certificate	1	2	3	4
	F. 2 year technical community college degree	1	2	3	4
	G. Other (please specify)_____	1	2	3	4
6.	Rate the value of the **entry-level** skills for secondary vocational graduates to other entry-level employees in the following areas.				
	A. Quantity of work	1	2	3	4
	B. Quality of work	1	2	3	4
	C. Job related technical skills	1	2	3	4
	D. Basic academic skills	1	2	3	4
	E. General employment skills	1	2	3	4
7.	From your perspective, how desirable is each location for training your local employees?				
	A. On the job site	1	2	3	4
	B. Local high school classroom	1	2	3	4
	C. Local high school laboratory	1	2	3	4
	D. Area vocational school	1	2	3	4
	E. Community college	1	2	3	4
	F. Technical institution	1	2	3	4

		Poor	Ade-quate	Good	Very Good
8.	How valuable has each of the following been in working with you to meet your labor market needs?				
	A. Secondary vocational-technical teacher	1	2	3	4
	B. Secondary vocational administrator	1	2	3	4
	C. Postsecondary vocational-technical teacher	1	2	3	4
	D. Postsecondary vocational-technical administrator	1	2	3	4
	E. JTPA	1	2	3	4
9.	Local secondary-vocational-technical education programs must be regularly evaluated. In order to remain relevant to the labor market needs of employers, please rate your local secondary vocational technical programs for:				
	A. Relevance to the workplace and to occupations for which students are to be trained.	1	2	3	4
	B. The extent to which local programs are realistic for current and future labor market needs.	1	2	3	4
	C. The extent to which local programs are realistic for areas of emerging technologies.	1	2	3	4

Section B

Please circle one number per item.

To what extent should high school(s):	None								Great Extent
1. Place equal emphasis on placement into employment and continuing education.	1	2	3	4	5	6	7	8	9
2. Offer basic academic skill enhancement courses in addition to specialized vocational-technical education courses?	1	2	3	4	5	6	7	8	9
3. Vocational-technical education programs set entry-level academic skill standards for getting into a vocational-technical education program?	1	2	3	4	5	6	7	8	9
4. Vocational-technical education programs increase the job skills attainment for their students?	1	2	3	4	5	6	7	8	9
5. Vocational-technical education teachers provide a job skill attainment profile for each student?	1	2	3	4	5	6	7	8	9
6. Expand their existing vocational-technical curriculum for all aspects of the industry the students are preparing to enter?	1	2	3	4	5	6	7	8	9
7. Provide more career information and experiences before requiring the students select a vocational-technical education program?	1	2	3	4	5	6	7	8	9

	None								Great Extent
8. Special education classes for handicapped students reinforce vocational-technical education job skills?	1	2	3	4	5	6	7	8	9
9. Special education classes for handicapped students teach general employment skills?	1	2	3	4	5	6	7	8	9
10. Offer disadvantaged (below academic skill level) students basic skill remediation through regular academic courses?	1	2	3	4	5	6	7	8	9
11. Reinforce general employment skills through regular academic courses for disadvantaged (below academic skill level) students?	1	2	3	4	5	6	7	8	9

Section C General Employment Skills

Many articles and studies involving employers are recognizing the importance of general employment skills for their employees. We are seriously soliciting your inputs in order to ascertain which general employment skills should be considered to be included in our state curriculum guides. Your inputs will help us validate and rate the enclosed general employment skills. Please rate the importance of each item for entry-level employment.

	Importance for Entry-Level Employment Not Important								Very Important
Part I.									
1. Pride in work	1	2	3	4	5	6	7	8	9
2. Commitment to quality	1	2	3	4	5	6	7	8	9
3. Work completion	1	2	3	4	5	6	7	8	9
4. Sense of responsibility	1	2	3	4	5	6	7	8	9
5. Commitment to lifelong learning	1	2	3	4	5	6	7	8	9
6. Achievement oriented	1	2	3	4	5	6	7	8	9
7. Seeks information	1	2	3	4	5	6	7	8	9
8. Seeks assistance	1	2	3	4	5	6	7	8	9
9. Accepts constructive criticism	1	2	3	4	5	6	7	8	9
10. Follows directions	1	2	3	4	5	6	7	8	9
11. Respect for others	1	2	3	4	5	6	7	8	9
12. Respect for authority	1	2	3	4	5	6	7	8	9
Part II.									
1. Self-esteem	1	2	3	4	5	6	7	8	9
2. Self-motivating	1	2	3	4	5	6	7	8	9
3. Enthusiastic	1	2	3	4	5	6	7	8	9
4. Dependable	1	2	3	4	5	6	7	8	9

	Importance for Entry-Level Employment Not Important — Very Important
5. Initiative	1 2 3 4 5 6 7 8 9
6. Integrity	1 2 3 4 5 6 7 8 9
7. Loyalty	1 2 3 4 5 6 7 8 9
8. Punctual	1 2 3 4 5 6 7 8 9
9. Shows interest	1 2 3 4 5 6 7 8 9
10. Attendance	1 2 3 4 5 6 7 8 9
11. Well groomed	1 2 3 4 5 6 7 8 9
12. Friendly	1 2 3 4 5 6 7 8 9

Part III.

1. Problem solving	1 2 3 4 5 6 7 8 9
2. Reasoning	1 2 3 4 5 6 7 8 9
3. Goal setting	1 2 3 4 5 6 7 8 9
4. Priority setting	1 2 3 4 5 6 7 8 9
5. Conceptualizing the problem	1 2 3 4 5 6 7 8 9
6. Creative thinking	1 2 3 4 5 6 7 8 9
7. Coping skills	1 2 3 4 5 6 7 8 9
8. Communicating--listening	1 2 3 4 5 6 7 8 9
9. Communicating--speaking	1 2 3 4 5 6 7 8 9
10. Communicating--writing	1 2 3 4 5 6 7 8 9
11. Organizing information	1 2 3 4 5 6 7 8 9
12. Ability to work in teams	1 2 3 4 5 6 7 8 9

Please provide any suggestions for improving the local secondary vocational-technical education.

_____

_____

_____

_____

_____

THANK YOU FOR YOUR TIME AND PARTICIPATION.